# BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

#### **DOCKET NO. 2018-318-E**

In the Matter of:	)	
	)	DIRECT TESTIMONY OF
Application of Duke Energy Progress, LLC	)	KODWO GHARTEY-TAGOE
for Adjustments in Electric Rate Schedules	)	FOR DUKE ENERGY
and Tariffs	)	PROGRESS, LLC

#### I. <u>INTRODUCTION</u>

- 1 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION
- 2 WITH DUKE ENERGY CORPORATION.
- 3 A. My name is Kodwo Ghartey-Tagoe, and my business address is 40 West
- Broad Street, Greenville, South Carolina 29601. I am State President South
- 5 Carolina for Duke Energy Progress, LLC ("DE Progress" or "Company") and
- Duke Energy Carolinas, LLC ("DE Carolinas"), both of which are wholly
- owned subsidiaries of Duke Energy Corporation ("Duke Energy").
- 8 Q. BRIEFLY SUMMARIZE YOUR EDUCATIONAL BACKGROUND
- 9 **AND PROFESSIONAL AFFILIATIONS.** 
  - A. I earned my Juris Doctor degree from Duke University and a Bachelor of Arts
- degree, with joint honors in economics and finance, from McGill University
- in Montreal, Quebec. I also completed the Advanced Management Program at
- the Wharton School of Business. I am admitted to the North Carolina Bar. I
- serve on the Board of Directors of the United Way of Greenville County and
- the Palmetto Conservation Foundation, and on the board of visitors of Duke
- University Law School. I am also on the advisory board of Progress in
- Education, Inc., a charitable and educational organization I helped found in
- 18 2000 to assist schools in Ghana to improve their quality of instruction, and to
- 19 promote cross-cultural understanding between students in Ghana and students
- 20 in America.

#### 1 Q. PLEASE DESCRIBE YOUR BUSINESS BACKGROUND AND

#### 2 **EXPERIENCE.**

I have been in my current position since January 2017. Prior to that I served as 3 A. senior vice president of state and federal regulatory legal support for Duke 4 Energy. I joined the Company in 2002 as chief regulatory counsel for Duke 5 Power. I have served as vice president, legal, for Duke Energy's Commercial 6 Businesses organization, and was responsible for providing legal advice to the 7 Company's commercial businesses, including Duke Energy International, 8 Duke Energy Renewables, Midwest Commercial Generation and Commercial 9 Transmission. I also served as Duke Energy's general counsel for litigation, 10 as well as vice president, legal – state regulation for Duke Energy's 11 Franchised Electric and Gas business. Before joining the Company, I was a 12 partner with McGuire Woods LLP in Richmond, Virginia. 13

### 14 Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT

#### POSITION?

15

I lead Duke Energy's regulated electric utility businesses in South Carolina,
which include serving approximately 170,000 DE Progress electric customers
in South Carolina. I am responsible for the financial performance of the
Company's electric utility in South Carolina and managing state and local
regulatory and governmental relations, and community affairs. I also have
responsibility for advancing the Company's legislative and regulatory
initiatives related to its electric operations.

#### 1 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE

- 2 **COMMISSION?**
- 3 A. Yes. On July 23 2018, I testified before the Commission on behalf of DE
- 4 Progress and DE Carolinas in an allowable exparte proceeding in Docket No.
- 5 ND-2018-19-E on the management of Duke Energy hydroelectric projects.

#### 6 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

- 7 A. The purpose of my testimony is to provide an overview of DE Progress'
- 8 requested rate increase in support of the Company's Application in this case.
- In my testimony, I explain the primary cost drivers making up this requested
- rate increase, as well as the steps we have taken to minimize DE Progress'
- cost to provide safe, reliable, cost-effective and increasingly clean electricity
- to our customers, including work related to environmental requirements. I
- explain how we are improving our grid in a manner to better our customers'
- lives and the economy of our State. Finally, I describe how the requested rate
- increase will allow the Company to remain a financially strong utility that is
- well positioned in financial markets to the benefit of our customers.
- 17 Q. WHO ARE THE OTHER WITNESSES PRESENTING TESTIMONY IN
- 18 SUPPORT OF THE COMPANY'S APPLICATION IN THIS
- 19 **PROCEEDING?**
- 20 A. The Company's other witnesses filing direct testimony in support of this case
- 21 are:
- 1. **Laura A. Bateman**, Director of Rates & Regulatory Planning, who
- describes the results of DE Progress' operations under present rates on

the basis of an adjusted historical Test Period (twelve months ending December 31, 2017). Witness Bateman details the calculation of the additional revenue required as a result of the investments and general cost increases since the last DE Progress Rate Case and discusses several pro forma adjustments to the test year operating expenses and to the end of year actual rate base. Witness Bateman also explains the calculations for various accounting order requests the Company makes in its Application. Further, Witness Bateman provides the capital structure and embedded cost of debt used by the Company in calculating its proposed increase. Finally, Witness Bateman explains the proposal the Company is making regarding an excess deferred income taxes ("EDIT") rider and cost recovery related to grid investments.

- 2. **Kelvin Henderson,** Senior Vice President of Nuclear Operations for Duke Energy, who provides an update on capital additions in recent years, as well as key drivers impacting nuclear operations and maintenance ("O&M") costs. Witness Henderson also discusses the operational performance of DE Progress' nuclear generation fleet during the January 1, 2017 through December 31, 2017 Test Period.
- 3. **John Sullivan**, Director of Corporate Finance and Assistant Treasurer, who addresses the Company's financial objectives, proposed capital structure and cost of capital. Witness Sullivan also discusses the current credit ratings and forecasted capital needs of the Company and

2.1

the importance of DE Progress' continued ability to meet its financial 1 objectives. 2 4. David L. Doss Jr., Director of Electric Utilities and Infrastructure 3 Accounting, who describes the financial position of DE Progress at 4 December 31, 2017, and the actual results of the Company's 5 operations for the Test Period. He also addresses depreciation 6 expense, adjustments to the depreciation rates based on the recently 7 approved depreciation study, and nuclear decommissioning costs. 8 5. Janice Hager, President of Janice Hager Consulting. Witness Hager 9 supports the allocation of Company electric operating revenues and 10 expenses, and original cost rate base assigned to the South Carolina 11 retail jurisdiction and to each customer class. 12 6. Robert B. Hevert, Partner of ScottMadden, Inc., who presents his 13 14 independent analysis of the Company's cost of equity. Witness Hevert discusses the Company's requested capital structure and makes a 15 16 recommendation for an allowed return on equity ("ROE") to allow the 17 Company to both attract capital on reasonable terms and maintain financial strength. 18 7. 19 **John Panizza**, Director of Tax Operations, who addresses federal tax reform legislation, the Tax Cuts and Jobs Act (the "Tax Act"), which 20 21 became law on December 22, 2017. 8. 22 Retha Hunsicker, Vice President of Customer Connect-Solutions for

Duke Energy. Witness Hunsicker discusses the Company's Customer

1		Information Systems ("CIS") and explains why it is necessary to
2		convert that CIS into a modern customer service platform, known as
3		Customer Connect.
4	9.	Jon F. Kerin, Vice President, Coal Combustion Products Operations,
5		Maintenance and Governance, who describes DE Progress' ash basin
6		closure and compliance costs and plans, and the activities underlying
7		the costs sought for recovery in this case.
8	10.	Dr. Julius (Chip) Wright, Ph.D., Managing Partner, J. A. Wright &
9		Associates, LLC, will testify to ratemaking policy and regulatory
10		approaches to the recovery of prudently incurred environmental
11		compliance costs.
12	11.	Kendra Ward, Rates & Regulatory Strategy Manager with Duke
13		Energy, who supports the base fuel factor for base rates for all
14		customer classes for DE Progress.
15	12.	Joseph A. Miller Jr., Vice President of Central Services, who provides
16		an update on the Company's fossil, hydroelectric and solar
17		(collectively, "Fossil/Hydro/Solar") facilities included for recovery in
18		this case. Witness Miller describes capital additions made in recent
19		years and capital investments planned for the upcoming years and key
20		drivers impacting O&M costs. Witness Miller also discusses the
21		operational performance of the Company's Fossil/Hydro/Solar fleet
22		during the Test Period.

- 1 3. **Jay W. Oliver**, General Manager, Grid Solutions Engineering and
  2 Technology, who discusses the Company's transmission and
  3 distribution ("T&D") system, the operation and performance of the
  4 T&D system and the costs necessary to operate, maintain and improve
  5 upon it, including providing detail on major grid investment initiatives,
  6 and the underlying investments to be recovered through the
  7 Company's Grid Improvement Plan.
  - 14. **Steven B. Wheeler,** Pricing & Regulatory Solutions Director, who will demonstrate that the rates DE Progress proposes reflect appropriate ratemaking principles, and result in an equitable basis for recovery of the Company's revenue requirement across and within its various rate schedules. Witness Wheeler also describes proposed changes to the Company's retail electric schedules and quantifies the effect of these changes to retail customers.
  - 15. **Donald L. Schneider, Jr.,** General Manager, Advanced Metering Infrastructure ("AMI") Program Management, who describes the Company's progress in deploying AMI technology across its South Carolina service territory.

#### II. <u>SUMMARY OF REQUEST</u>

#### Q. WHY IS DE PROGRESS PROPOSING A BASE RATE ADJUSTMENT?

A. Recent work to modernize the electric system, generate cleaner power, responsibly manage and close our coal ash basins, and continually improve service to customers have made it necessary for DE Progress to request a net

8

9

10

11

12

13

14

15

16

17

18

19

increase in its retail revenues of approximately \$59 million on June 1, 2019, which represents an approximate overall 10.3 percent increase in annual revenues. The Company is also presenting a three-year plan known as the South Carolina Grid Improvement Plan, which I believe will effectively serve customers now and in the years ahead. The Company's Application requests that the Commission approve the Grid Improvement Plan and expenditures for the next three years as detailed in Exhibit 9 to Witness Oliver's testimony. If approved, additional rate changes related to the Grid Improvement Plan would result in cost recovery of approximately \$5.1 million beginning June 1, 2020 and \$5.8 million beginning June 1, 2021.

Major investments in generating plant additions and plant-related expenses, investments in the grid and metering systems, changes in depreciation rates as well as a new billing system, account for a significant portion of this case. Additionally, since its last rate case, DE Progress has invested heavily in state-of-the-art technology and environmental equipment to reduce emissions. The Company's request also contains compliance costs associated with state and federal environmental compliance requirements related to Coal Combustion Residuals ("CCR"). The requested increase includes the benefits of the federal Tax Act, and our filing today details our plans to continue to pass on related tax benefits to our customers such that it will continue to help apply downward rate pressure for the benefit of our customers.

This increase is necessary to pay for investments to build a cleaner, more reliable and smarter energy future in South Carolina. Our investments include

the roll out of new meters that align with a new customer information system to give customers more information and service options; including the new Prepaid Advantage Pilot program to allow DE Progress customers to avail themselves of a prepayment plan that can eliminate the need for deposits. Additional customer focused changes include eliminating the need for our residential customers to pay a fee every time they use a credit or a debit card to make a payment, by including the amount of the fees in our cost of service and collecting them in rates.

Further, this case includes grid investments being made by the Company to improve and modernize our operations for the benefit of customers. The unique nature of these investments is why DE Progress is proposing the Grid Improvement Plan, and is why we are seeking corresponding rate changes to recover the cost of the three-year plan, as discussed by Witnesses Bateman, Oliver and Wheeler.

These smart investments in technology, infrastructure, environmental protection and customer service will help connect customers to a cleaner, more reliable, smarter energy future. At Duke Energy, we know how vital electricity is to our customers and their families, as well as our state. Customers expect the Company to deliver electricity that is safe, reliable, affordable and increasingly clean, while also making smart investments that help communities and local economies thrive, create jobs and opportunities, and that provide more value every day.

We are providing customers with increasingly clean energy from state-
of-the-art carbon-free nuclear plants and new, highly-efficient natural gas and
utility-scale solar energy projects. In fact, nearly half of the electricity we
generated in the Carolinas last year came from carbon-free resources,
including hydro-electric facilities. Powering the lives of South Carolina's
hard-working families and communities is the most important job we have.
Our more than 4,000 dedicated Duke Energy employees who live and work
every day in communities across our state- in good weather and bad - and the
thousands more out of state employees who support our service in South
Carolina, take this responsibility seriously. Smart investments in technology,
infrastructure and environmental protection will help connect millions of our
customers to a better energy future.

Q. IF APPROVED, WHAT WOULD BE THE IMPACT 13 OF THE **REQUESTED** 14 **COMPANY'S INCREASE** TO THE **TYPICAL** RESIDENTIAL **CUSTOMER CONSUMING** 1000 **KWHS PER** 15 MONTH? 16

The requested revenue increase of \$59 million on June 1, 2019, followed by incremental increases to reflect additional grid investments in 2020 and 2021, would result in the following increases by DE Progress' rate classes: (1) a typical residential customer using 1,000 kWh will see an increase of approximately \$17.91 per month beginning with the rate effective date in this case, requested to be June 1, 2019, and then an increase of \$1.60 per month beginning June 1, 2020 and an additional \$1.81 per month beginning June 1,

1

2

3

4

5

6

7

8

9

10

11

12

17

18

19

20

21

22

23

A.

2021; (2) small general customers, on average, will see a 14.5 percent increase on June 1, 2019, and then an increase of 1.5 percent per month beginning June 1, 2020 and an additional 1.7 percent increase per month beginning June 1, 2021; (3) medium general service customers, on average, will see a 6.7 percent increase on June 1, 2019, and then an increase of 0.5 percent increase per month beginning June 1, 2020 and an additional 0.6 percent increase per month beginning June 1, 2021; (4) large general service customers, on average, will see an 9.6 percent increase on June 1, 2019, and then an increase of 0.4 percent per month beginning June 1, 2020 and an additional 0.4 percent increase per month beginning June 1, 2021; and (5) lighting customers, on average, will see a 6.3 percent increase on June 1, 2019, then an increase of 1.0 percent per month beginning June 1, 2020 and an additional 1.2 percent increase per month beginning June 1, 2021. More details can be found in the testimony of Witness Wheeler.

DE Progress is also proposing, supported by costs to serve, an increase in the Residential Basic Facilities Charge from \$9.06 to \$29.00 per month effective June 1, 2019. This means that customers would be paying approximately \$0.95 cents per day for facilities in place to serve them, regardless of how much electricity is used. The increase in the Residential Customer Charge is not additive to the rate increase requested in this case. Rather, the proposed change is a more accurate reflection of how the Company collects its costs. The Company proposes to collect fixed cost through the fixed monthly charge based on the cost to serve instead of

continuing to collect it through the variable, volumetric energy rate. We took this approach because current rates significantly understate the current cost of service related to the customer component of cost. In addition, the Company's requested fixed monthly charge is comparable to the fixed monthly charge established by many other electricity providers in the State. Witnesses Wheeler and Hager explain this in further detail in their testimony.

#### III. BASE RATE REQUEST

Q. PLEASE PROVIDE MORE DETAIL ABOUT THE INVESTMENTS

DRIVING THE COMPANY'S REQUESTED 10.3 PERCENT

OVERALL ADJUSTMENT TO ANNUAL REVENUES.

Since DE Progress' last rate case filed and concluded in 2016 ("2016 Rate Case"), we have continued to invest in our facilities, equipment and operations to better serve our customers. For example, since the conclusion of the 2016 Rate Case, DE Progress has made significant investments in numerous nuclear, fossil, hydro and solar projects, helping to provide customers with energy that is more reliable, efficient and cleaner than ever.

In July 2017, the Company placed into service the two new combustion turbines ("CT") for the Sutton Combined Cycle generation. The Sutton CT project provides an additional 78 MWs of capacity to the Company's fleet. The Company's investment in this project totaled \$101 million. These units are critical components of the ability to restart the generation system in the event of a catastrophic storm or event and provide offsite power to Brunswick Nuclear Station. In addition, DE Progress also

A.

made capital additions at Roxboro Station to convert to a dry bottom ash system to comply with federal requirements related to CCR. The Company's investment in this project totaled \$100 million. These investments will provide benefits to DE Progress' customers for decades to come, as discussed by Witness Miller.

DE Progress also seeks to recover costs incurred and deferred since July 1, 2016 through December 31, 2018 to comply with federal and state requirements related to CCRs. To mitigate rate impacts to customers, we request to recover these previously incurred expenses over a five year period resulting in a revenue requirement of approximately \$13 million.\frac{1}{2} This case also includes the amortization of regulatory assets over time related to smart meters;\frac{2}{2} the new Customer Connect system;\frac{3}{2} grid investments;\frac{4}{2} rate changes from the most recent depreciation study;\frac{5}{2} the Harris Combined Operating License Application;\frac{6}{2} compliance with NRC requirements in response to cybersecurity requirements and events at the Fukushima Daiichi Nuclear Power Station in Japan\frac{7}{2}; and the deferred costs associated with the filing of notices of application and withdrawal, along with other utilities in the state, to form a Regional Transmission Organization.\frac{8}{2} Witness Bateman provides detail regarding these deferral balances and the requested amortization.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

<sup>4</sup> Docket 2018-206-E, Order No. 2018-519 (October 3, 2018).

<sup>&</sup>lt;sup>1</sup> This case excludes any fines or penalties incurred by DE Progress related to ash basin closure or management.

<sup>&</sup>lt;sup>2</sup> Docket 2018-205-E, Order No. 2018-553 (August 9, 2018).

<sup>&</sup>lt;sup>3</sup> Id.

<sup>&</sup>lt;sup>5</sup> Docket 2018-205-E, Order No. 2018-553 (August 9, 2018).

<sup>&</sup>lt;sup>6</sup> Docket No. 2013-472-E, Order No. 2016-36 (January 20, 2016).

<sup>&</sup>lt;sup>7</sup> Id.

<sup>&</sup>lt;sup>8</sup> Docket 2001-139-E.

### Q. HAS THE IMPACT OF THE TAX ACT BEEN INCORPORATED INTO

#### THE COMPANY'S REQUEST?

A.

Yes. The proposed rates include a reduction from the corporate income tax rate from 35 percent to 21 percent. The Company also includes a proposal to flow back to customers, through a rider, excess deferred income taxes ("EDIT") and deferred revenue resulting from the Tax Act on utility operations. The Company's plan ensures that as customers benefit from the Tax Act, the Company is able to maintain the same financial strength it had prior to the Tax Act's passage. Finally, the Tax Act balances applied in this case include an offset to the balance accrued for Distributed Energy Program ("DERP") costs that have yet to be recovered. The balances have grown to \$13 million as of September 30, 2018, as provided by Witness Bateman. Given the benefits from the Tax Act, we thought it was reasonable to go ahead and eliminate those balances as the State explores additional options for rooftop solar. Otherwise it could be 15 years by the time we resolve those balances through existing channels.

The Company is also proposing rates be set on a return on equity ("ROE") of 10.50 percent. As described in Witness Sullivan's testimony, while the Company fully supports Witness Hevert's testimony and analysis that yielded a recommended ROE of 10.75 as filed in this case, the Company is proposing rates which include a 10.50 percent ROE as a rate mitigation measure. We have also proposed rates on a regulated capital structure that includes a 53 percent equity component as supported by Witness Sullivan.

#### Q. PLEASE DESCRIBE THE NEED TO ADDRESS COAL ASH BASINS.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

A.

For decades, along with other electric utilities across the country, DE Progress followed industry practices managing and storing coal ash consistent with regulations that evolved throughout that time. DE Progress has become subject to both federal and state regulations that require it to take additional significant actions to manage and permanently and safely close its ash basins in ways that protect human health and the environment. In April 2015, the Environmental Protection Agency promulgated new rules regarding the management and closure of ash basins. All of DE Progress's ash basins must be closed under these rules. Like other utilities around the country similarly affected by such regulation, the Company has begun the process of closing, or submitting plans to close, our ash basins in accordance with these regulations. Additionally, the Company is adding dry ash and Flue Gas Desulfurization blowdown handling systems to our coal-fired plants that are not already so equipped. DE Progress is also modifying all of active and decommissioned coal-fired plants in the Carolinas to divert storm water and low volume waste water away from the basins. These activities went through an initial review in the 2016 Rate Case.

As explained by Witness Bateman, the Company is requesting recovery of ash compliance costs in the amount of approximately \$50 million over five years. These costs were incurred after the cutoff date in the last rate case, June 30, 2016, through the cut-off in this case, December 31, 2018, with the October 1, 2018 – December 31, 2018 period still based on a projection as

of the time of the filing. The Company is seeking recovery of these costs over a five-year period in order to mitigate customer rate impacts associated with these significant compliance expenses. The Company expects to continue to invest significant amounts related to coal ash compliance after the December 2018 cut-off in this case. However, instead of requesting recovery of an ongoing level of these costs in this case, the Company is requesting the Commission approve a continuation of the deferral for costs incurred beyond this case.

Witness Kerin provides significant detail on the prudence of the Company's actions regarding ash basin creation, management and closure, and he is the Company's subject matter expert in this area. Witness Wright further speaks to the Company's actions related to coal ash and the regulatory policy surrounding cost recovery. However, it's worth mentioning that for decades, the Company has worked to provide electricity that is reliable, is delivered using the best practices and latest technologies at the time, and is available at reasonable rates. And for decades, reliable, affordable electricity was made possible—nationwide—by coal. In its day, coal was king. It fueled both a growing economy and population, along with demands for electricity across South Carolina, meeting the energy needs of communities from the mountains to the coast. It was the most advanced technology of its time.

With coal came coal ash – the byproduct of decades of generating electricity from this resource. In the early days, the best practice in the industry was to let coal ash simply go out the top of the smokestack. Later,

changing regulations and industry best practices led to the use of emissions control equipment and ash basins to dispose of coal ash, often in a pond-like environment. Today, instead of being handled wet and stored in ponds, coal ash is increasingly being handled dry and disposed of in lined landfills, or beneficially recycled for use in construction products or as fill material in place of dirt. In fact, Duke Energy recycled 78 percent of coal combustion byproducts in 2107, and that includes DE Progress recycling or beneficially re-using the ash that is produced at our coal-fired plants. We have retired all of the coal-fired plants owned by Duke Energy in South Carolina. And now, we are closing all ash basins across the state as part of new, sweeping state and federal regulations, and as part of Duke Energy's commitment to provide increasingly reliable, clean power to our customers at reasonable rates. Like any waste, we must ensure that coal ash is responsibly managed, just as we have done with spent nuclear fuel.

As we transition to a cleaner energy future by leveraging new technology and cleaner power sources, we must remember the many benefits coal energy provided over the last several decades. Because our customers have benefited from coal-produced electricity, the cost of responsibly managing waste from consuming coal for electricity must also be borne by our customers. This is an investment to help close out the coal era and push forward to a new, cleaner energy future.

# 1 Q. PLEASE DESCRIBE THE COMPANY'S GRID IMPROVEMENT 2 PLAN.

A.

From routine, day-to-day activities to powering high-tech manufacturing, the electric power grid is the backbone of South Carolina's digital economy; – not just today, but also 5, 10, 20 years in the future. As recent events have reinforced, the Company must be ready for severe weather before it strikes, and reduce the impact of storms that are worsening in frequency and intensity. DE Progress must be vigilant and prepare now for the very real threat of cyber and physical attacks. DE Progress also needs to provide more options for customers to allow more control over the way they use electricity. And as renewable energy technologies like solar energy, battery storage, micro-grids and electric vehicles become more affordable and accessible; the Company needs to take steps now to ready the grid to support the growth of these technologies that are important to South Carolina's energy future.

The Company's Grid Improvement Plan addresses all of these needs, while also managing costs. This Grid Improvement Plan was built using advanced data analytics that helped identify strategic opportunities for improvement. It also incorporates extensive input from customers, customer and environmental advocacy groups and others who helped to refine this plan to better serve their energy needs and the needs of our state. The Grid Improvement Plan includes investments designed to strengthen the grid and mitigate the impact of major storm events, as well as to harden and defend the grid against critical physical and cybersecurity risks. Examples of the

Company's multi-layered improvements designed to protect the grid include: updating grid technology including monitoring and communication equipment; installing protective devices to limit access to critical systems and minimize outages from physical or cyber-attack; and relocating, raising or reinforcing equipment in flood-prone areas.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

As discussed in the testimony of Witness Oliver, components of Duke Energy's Grid Improvement Plan operationally fall into one of three categories: (1) compliance-driven programs that protect the grid; (2) programs that leverage advanced technologies to modernize the grid; and (3) projects and programs that work to optimize customers' experience. We constructed the Grid Improvement Plan, with stakeholder feedback, to address the risks and opportunities that the analysis revealed. The Plan seeks to balance the pace, scope, location, and timing of our work to address a diverse set of customer and stakeholder needs. As we built the Grid Improvement Plan proposed in this case, the Company has also kept the needs of our rural and low-income customers in mind and sought to develop a strategy that maximizes benefits to customers and the state, while keeping costs as low as possible. The Company has sought out customer and stakeholder perspectives, including multiple stakeholder workshops, as part of the process before proposing this plan to the Commission.

## 1 Q. PLEASE DESCRIBE THE INVESTMENT IN THE CUSTOMER 2 INFORMATION SYSTEM ("CIS")?

A.

At 30 years old, the Company's current CIS system is no longer supported or upgradeable, and is unable to continue to be fully integrated into Duke Energy's other systems. The new system will be complementary to future technology, and includes the ability to interface with new smart meters to enable customers to more easily start and stop service, ask questions about their bills, view their usage, and allow the Company to identify the optimal rate plan for each customer when asked. Customers expect greater access to information about their account and energy use, and greater control over that information. Through the consolidation of the older information systems into a new information system, the Company will be able to deliver a customer experience that will simplify, strengthen and advance our ability to serve our customers in this digital age.

As explained by Witness Hunsicker, continued investment in an antiquated technology platform is neither practical nor sustainable, and would cost considerably more in the long run than replacing the system in its entirety. Customer information systems, just like any other software solution, periodically require replacement to deliver on capabilities required by business operations, and more importantly, customers.

#### 21 Q. PLEASE DESCRIBE THE CONTINUED INVESTMENT IN AMI.

A. To bring customers additional choices and insight on their usage, we have begun a full roll-out of AMI technology, including smart meters, in the service

territory in South Carolina. As explained by Witness Schneider, these smart meters will work in tandem with many of our grid investments. Moreover, modern meters will also provide crucial information to our CIS system, providing customers greater control, convenience and choice over their energy usage, while also giving customers the opportunity to budget, save time and save money. DE Progress has approximately 38,000 smart meters currently installed, and the next phases of deployment will replace approximately 128,000 older technology meters with smart meters by the end of 2020. These meters for South Carolinians are being manufactured by South Carolinians employed by Itron Inc. in Oconee County, South Carolina. The AMI technology will pave the way for programs that will allow customers to stay better informed during outages, control their due dates, avoid deposits, to be reconnected faster, and to better understand and take control of their energy usage, and ultimately, their bills.

## Q. PLEASE EXPLAIN THE COMPANY'S PROPOSAL FOR A FEE-FREE CREDIT/DEBIT CARD PROGRAM.

Currently, customer payments made by check, cash, free pay stations, and Automated Clearing House, using bank drafts or paperless billing, are free of charge. The costs for the Company to offer these methods are paid for by all customers and not recovered exclusively by those specific customers that use that method of payment. Residential customers using a credit or debit card through any payment channel or a one-time ACH payment via phone or on the Company's website are subject to a \$1.50 convenience fee. The convenience

A.

fee is collected by the Company's third-party vendor, SpeedPay. The Company receives no portion of this fee.

As customer expectations change and more payments are done electronically, utility companies are beginning to offer fee-free payment programs for their residential customers for all methods of payment. As supported by the National Association of State Utility Consumer Advocates (NASUCA) in Resolution 2012-07, "Urging Utilities to Eliminate 'Convenience Fees' for Paying Utility Bills with Debit and Credit Cards and Urging Appropriate State Regulatory Oversight,"9 and as further explained below, the Company believes it is reasonable to offer a fee-free payment program for all payment methods to its residential customers, and recover the costs associated with such a program from all customers through rates. The requirement to pay a convenience fee when making a payment is one of the largest frustrations customers experience. Customers have grown accustomed to paying for other products and services with a credit card or debit card without a separate, additional fee. Duke Energy Corporation has seen 10 percent average year over year growth in credit/debit card transactions over the past several years, and with this change we expect the growth rate to double – so 20 percent more transactions in 2019 than in 2018. Eliminating these fees for the Company's residential customers would provide additional options for residential customers to pay their bills. As discussed in the

-

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

<sup>&</sup>lt;sup>9</sup> https://nasuca.org/2012-07-urging-utilities-to-eliminate-convenience-fees-for-paying-utility-bills-with-debit-and-credit-cards-and-urging-appropriate-state-regulatory-oversight/

I		NASOCA Resolution 2012-07, additional fees for paying utility offis can be
2		burdensome to customers.
3		We also know that our customers want this option. The Company's
4		Customer Service department routinely receives inquiries about no-cos
5		electronic payment options. In the Company's 2018 Monthly Residentia
6		Transaction Surveys, residential customers noted some of the following when
7		asked what they liked least about Duke Energy:
8		"Not charge a fee for using a credit card."
9		"The fact that you can't pay online without being charged. Everybody else has a free service to pay online."
11 12 13		"Take away the service charge. I just don't understand why you wan to charge somebody \$1.50."
14 15 16 17		"The only thing that I can say is I think they want to penalize you. If you want to pay a certain way, they charge you extra."
18		We think our customers will appreciate being able to use credit cards with the
19		Company the same way they can with other companies.
20	Q.	IS THE COMPANY PROPOSING A FEE-FREE CREDIT/DEBIT
21		CARD PROGRAM FOR ITS COMMERCIAL AND INDUSTRIAL
22		CUSTOMERS AT THIS TIME?
23	A.	Not at this time. Because commercial and industrial customers generally have
24		more methods in which to pay, and their average payment amount is
25		significantly higher than residential (which leads to higher processing costs)
26		at this time the Company is not proposing a fee-free program for commercia
27		and industrial customers.

#### V. CUSTOMER LANDSCAPE

#### Q. CAN YOU PUT DE PROGRESS' RATES INTO PERSPECTIVE?

A.

3 A. Yes. First, we believe that electricity in South Carolina remains an excellent value, even with the proposed adjustment.

Over the past year, gas prices, a basic consumer good is up 3.5 percent. However, the cost of electricity in the Southeast has dropped 2.6 percent from September 2017 to September 2018. Electricity provides fundamental value to our daily life by powering appliances, heating and cooling homes, cooking food, and allows us to use our televisions, computers, charging devices such as tablets and smartphones and other devices that are now a common part of our everyday lives. Even with the rate adjustment, our customers will continue to pay competitive rates.

### 13 Q. IS THE COMPANY PROACTIVELY EDUCATING CUSTOMERS 14 ABOUT ITS PROPOSALS IN THIS CASE?

Yes. DE Progress is committed to being transparent and keeping customers informed about the costs included in their bills and proposals to adjust rates. The Company has engaged in Grid Workshops to describe and help shape our Grid Improvement Plan, and we regularly publicly communicate about our environmental compliance work. We have also been very transparent about our investments to build a smarter energy future for our customers powered by cleaner, more efficient energy sources such as highly efficient natural gas, carbon-free nuclear energy, renewable resources like hydroelectric generation and solar energy.

Now that the Company's request has been filed, DE Progress will utilize a section of the Duke Energy website to include videos, fact sheets and direct information about the components of this case. In addition to the website, the Company has and will continue to inform and educate our customer as well as those community facing employees who interact with our customers about this request.

## Q. HAS THE COMPANY CONTINUED ITS ONGOING EFFORTS TO MITIGATE CUSTOMER RATE IMPACTS?

A.

Yes. The Company relies on a variety of fuel sources to generate power and has prudently managed its operating costs. This fuel diversity allows DE Progress to choose how to generate electricity – day by day, hour by hour – based on the cost of the fuel needed to run its different plants. DE Progress has managed its costs through continuous improvement to its operations (thereby benefitting customers through efficiency-derived controlled costs) as well as through significant cost containment policies and activities.

The Company is also committed to performance excellence, and has been recognized for it and the cost savings it brings. For example, in 2017, the DE Progress' nuclear fleet achieved the second highest output in history, falling just below the record established in 2014. The Harris station established a new generation record during 2017, and Brunswick completed its longest dual-unit continuous run. Also, as explained by Witness Henderson, I'm proud that Duke Energy has been recognized by the Nuclear Energy Institute ("NEI") with three Top Industry Practice ("TIP") awards in 2017;

Utilization of FLEX Equipment, Core Shroud Inspections, and Procurement Engineering Prioritization. The FLEX Equipment award recognizes the Company for innovative use of FLEX equipment to improve safety and reduce outage durations. The Core Shroud Inspection award recognizes innovation in inspection methods that are expected to save \$1.8M through 2020, and the award related to Procurement Engineering Prioritization recognizes the Company's development of a computer application that enhances work schedule achievement and ensures materials are available when needed.

# 10 Q. WHAT OTHER INITIATIVES HAS THE COMPANY IMPLEMENTED 11 TO HELP ITS CUSTOMERS REDUCE THEIR ELECTRICITY 12 BILLS?

Duke Energy wants to help customers understand their energy use, empowering them to save money on their electric bill. DE Progress is continuing to expand and enhance its portfolio of demand-side management ("DSM") and energy efficiency ("EE") programs because these programs have proven to be one of the most effective means to reduce energy costs, offset the need for new power plants, and protect the environment. DE Progress' robust portfolio of EE programs is designed to provide offerings that engage and educate customers around their energy usage and efficiency, as well as empower customers by providing them with financial incentives to invest in efficiency improvements. Duke Energy offers customers more than a dozen energy-saving programs for every type of energy user and budget. The

A.

Company's EE programs currently save its customers in the Carolinas over 1.7 billion kWh annually or over \$170 million, which is about four percent of total retail kWh sales. Combined, its DSM and EE programs offset capacity requirements by the equivalent of over four power plants. The Company's growing portfolio of DSM programs further offers customers opportunities to lower their bills by providing them with financial incentives in exchange for shifting the timing of their electricity use from peak to nonpeak periods, thereby helping the Company to reduce fuel costs during the periods when energy costs the most to produce.

The Neighborhood Energy Saver Program is a residential EE program targeted at low-income customers that includes the direct installation of a number of EE measures. DE Progress has implemented the program utilizing a neighborhood engagement, door-to-door strategy. Through the program, a comprehensive package of EE measures is installed at no direct cost to the customer. Since its inception, we've helped more than 8,700 DE Progress customers in South Carolina save nearly 319,000 kWh each year. This means the average household could save more than \$45 per year on energy costs. Equally important, each participating household is given information and education along with EE tips and information about other programs that can help them reduce their bills.

### 1 Q. ARE THERE PROGRAMS IN PLACE TO OFFER FINANCIAL 2 ASSISTANCE TO YOUR CUSTOMERS?

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

20

21

22

23

A.

A.

Yes. We know that for many customers, any savings on their power bill can make a big difference in their monthly budget. The Energy Neighbor Fund is an assistance program for DE Progress customers in need, helping low-income individuals and families cover home energy bills. Eligibility is determined by the county Department of Social Service (DSS) agencies. The Energy Neighbor Fund program is funded by contributions from customers, employees, and the Duke Energy Foundation. DE Progress customers are able to add a one-time or recurring contribution to their bills. Over the life of the Energy Neighbor Fund program it has provided approximately \$3.2 million to DE Progress' South Carolina customers. We have also made it easier for assistance agencies to make commitments to help financially challenged customers with their bills through use of our agency portal.

The Company also offers optional bill management programs designed to assist eligible customers in either managing fluctuations in their monthly bill or who are having difficulty paying their entire bill by the due date.

# 18 Q. WHAT OTHER COMPANY EFFORTS ARE UNDERWAY TO ASSIST 19 CUSTOMERS WITH THEIR ABILITY TO PAY?

Duke Energy is committed to helping all customers keep their accounts and their service in good standing. Often, simply spreading energy costs equally over time can help customers manage their costs and pay their bills. Payment plans are important not only to low-income customers, but to other residential

customers who may have had to adjust their household budgets. DE Progress' Equal Payment Plan allows customers to spread out the impacts of seasonal fluctuations into twelve equal monthly payments. The Company also offers payment arrangements in South Carolina to customers unable to pay their bill by the past due date. Payment arrangements can help customers avoid interruption of service and help them re-establish control over their payments and their bill. We continue to look for additional ways to help customers manage their payments.

The Company has also developed and implemented programs other programs including a free customized home energy report to inform and assist with lowering customers' consumption through energy efficiency. Home Energy House Call is a free in-home energy assessment, valued at \$180 that provides customers living in single family homes with information about their unique energy use and steps they can implement to become more energy efficient. DE Progress's Residential Multi-family Energy Efficiency Program ensures that customers living in multi-family residences also have opportunities to save by providing multi-family residents with electric water heaters. These EE measures are provided at no direct cost to the customer and are installed by the Company. Also, the Home Energy Improvement Program helps customers offset the high upfront cost of making energy-efficiency upgrades to their homes, with incentives for a variety of energy-saving investments.

In addition, the High Bill Alerts program was implemented for DE Progress customers in South Carolina. The program proactively notifies customers via email when their forecasted electricity consumption cost for their next bill is 30 percent or \$30 higher than their previous month's bill. Finally, the Company offers a Lower My Bill Toolkit, which in five easy steps helps the customer track their energy usage and reduce energy costs.

### 7 Q. HOW HAS THE COMPANY FOCUSED ON DELIVERING 8 EXCELLENT CUSTOMER SERVICE?

A.

We are working every day to explore new ways to enhance the customer experience. Customer satisfaction ("CSAT") is a key focus area for DE Progress. The Company operates a robust CSAT program, which includes both national benchmarking studies and proprietary transaction and relationship CSAT studies. Results from these studies are analyzed in vigorous quarterly data review sessions, with findings driving improvements to processes, technology and behaviors – all in an effort to continuously improve CSAT. The 2018 J.D. Power's Electric Utility Residential Study ranked DE Progress in the top quartile for performance in all categories (Power Quality and Reliability, Price, Billing and Payment, Corporate Citizenship, Communications, and Customer Service).

DE Progress measures overall customer satisfaction and perceptions about the Company in our proprietary relationship study, the "Customer Perceptions Tracker." Feedback is requested from residential and small/medium business customers, and all large business electric customers,

to better understand their customer experience with Duke Energy and overall perceptions of the Company. Duke Energy SC Residential satisfaction scores peaked in 2016 to 86 percent highly satisfied customers.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

In addition to our relationship study, DE Progress utilizes Fastrack, the Company's proprietary transaction study, to measure overall customer satisfaction with our operational performance (i.e. responding to and resolving customer service requests.) Each year, thousands of interviews are conducted with our customers by a third-party research supplier upon the completion of the customer's service request. The survey questions cover the entire experience, from the time the customer picks up the phone to contact the Company, until the issue is resolved and the truck drives away from the customer's property. Analysis of these ratings helps to identify specific service strengths and opportunities that drive overall satisfaction and to provide guidance for the implementation of process and performance improvement efforts. Through mid-2018, roughly 87 percent of DE Progress residential customers expressed high levels of satisfaction with the following service interactions: Start/Transfer Service (89 percent), Outage/Restoration (89 percent), and Street Light Repair (83 percent).

Also, in 2017, 'Customer Satisfaction' continued as one of a select number of goals included in the annual incentive compensation plans for DE Progress employees. By connecting customer satisfaction directly to compensation, each employee is "invested" in improving and maintaining high customer satisfaction for all Duke Energy utilities, including DE

Progress. Results are monitored at the enterprise level, state level, and by customer segment, so problems can be identified and corrected. This also allows the Company to identify and apply best practices across all of our jurisdictions.

We also continue to enhance our customer service practices to address language, cultural and disability barriers. Among other accommodations, the Company's customer service center offers customer service and correspondence in Spanish, handles calls from TTY devices (text telephones), offers bills in Braille, and accepts pledges to pay from social service agencies.

#### V. <u>ECONOMIC DEVELOPMENT AND EDUCATION EFFORTS</u>

### Q. DOES DE PROGRESS VIEW ECONOMIC DEVELOPMENT AS A

#### VITAL PART OF ITS BUSINESS?

A.

Yes. Making smart investments in energy infrastructure can help to attract business and industry, bring good jobs to the state, and promote smart growth and economic prosperity across South Carolina. It takes investment to provide the reliability our customers expect – investment in power plants, poles and wires, substations and meters. But all of that investment provides critical infrastructure that supports businesses and jobs, schools and universities, stores and the products consumers purchase, and a foundation to ensure the future remains bright for communities across the State. Over the last century, Duke Energy has invested millions of dollars into local economies across the state. When a new power plant is built or transmission line constructed, it creates jobs and results in money spent at the local level

while creating a tax base that supports local infrastructure and services.

Economic development efforts are critical to retaining and growing the industrial base and manufacturing load so that the state can experience continued job growth and economic success. This helps keep electric rates competitive and mitigates rate increases by enabling costs to be spread across a larger customer base.

A.

### 7 Q. PLEASE DESCRIBE THE COMPANY'S ECONOMIC 8 DEVELOPMENT EFFORTS IN SOUTH CAROLINA.

DE Progress has an Economic Development team responsible for retaining and supporting expansion opportunities for existing customers while also targeting potential new customers and supporting efforts to recruit them to the service area. In addition to coordinating with, or participating in, statewide or community task forces or initiatives, the team works with businesses on site selection and expansion opportunities. Since 2013, 17 sites in DE Progress' South Carolina service territory, totaling over 5,257 acres, participated in Duke Energy's Site Readiness Program, which is intended to identify, assess, improve and increase awareness of industrial sites in the Carolinas, and can result in matching grants from the Company of up to \$10,000 to implement improvements to viable sites. Currently there is one major project constructed on a site that went through the program, resulting in over 60 jobs and over \$57 million in capital investment.

The Company's ongoing Carolinas Investment Fund also provides support for projects in the Carolinas service area aimed at recruiting new

industry, retaining existing jobs, and expanding existing customer operations, by partnering with state or local economic development organizations to provide appropriate incentives. These projects typically include site or building development and related infrastructure or other site preparation requirements. The grants from the Carolinas Investment Fund serve as important discretionary supplements to incentives offered by the state or local entities. To qualify for the grants the recipient must create certain numbers of new jobs or make capital investments, subject to minimum dollar amounts. Since 2013, DE Progress has contributed to the creation of more than 1,416 jobs in South Carolina and \$789.7 million in capital investments.

Much of this effort has been aimed at encouraging new industrial investments. We believe a healthy industrial base is good for all of our customers. As new manufacturing businesses are established and existing manufacturing businesses expand, they typically create a significant multiplier effect that directly and indirectly produces additional jobs and investments. However, our efforts for economic development are not focused solely on industrial customers.

Training and recruiting a highly skilled workforce is also essential to maintaining the competitiveness of our region. Over the last three years Duke Energy has invested almost \$500,000 to support the development, promotion, and delivery of workforce training programs through South Carolina's Technical and Community Colleges. We are confident that our sustained economic development efforts will continue to provide positive results here in

l	South Carolina and benefit customers by keeping rates competitive over the
2	long term through an increased customer base served by our plant investment.

#### VI. POWERING THE FUTURE

## 4 Q. DO THE FUTURE PLANS OF THE COMPANY SUPPORT THE 5 ECONOMIC DEVELOPMENT PROSPECTS IN SOUTH CAROLINA?

- A. Yes. Our infrastructure and CIS investments will help power the future in 6 South Carolina, not only for the economy as a whole, but the manner in 7 which our customers will consume, monitor and manage their electricity 8 consumption. While we have come a long way in modernizing our generation 9 systems, we now need to focus similarly on our grid, metering and 10 information technology systems. These investments are important for us to 11 continue reliably serving customers. I discuss these investments below. While 12 all of these investments are not included in this case, it's important to share 13 14 our vision of a smarter energy future.
- 15 Q. PLEASE DESCRIBE HOW THE COMPANY WILL BUILD A
  16 SMARTER ENERGY FUTURE.
- The grid is the backbone of the new digital economy. South Carolina is served through a multi-state electric system that 6,300 miles of transmission lines, more than 25,000 miles of underground distribution lines, and approximately 500 substations. For the DE Progress' distribution system, approximately 1,200 distribution line miles and 8,398 transformers were added over the last two years. As one of the fastest growing states in the nation, South Carolina's

population now tops 5 million and we are projecting over 400,000 more, or a 9 percent increase by the year 2030. That's creating real demands on our grid.

The Grid Improvement Plan proposed in this case is a long-term initiative, and the Company has provided its multi-year plan built upon strategic, data-driven investments to improve reliability to avoid outages and speed restoration; harden the grid to protect against cyber and physical threats; expand solar and other innovative technologies across a two-way, smart-thinking grid; and give customers more options and control over their energy use and tools to save money. The Company proposes additional rate changes in 2020 and 2021 to reflect the remaining years of the multi-year plan, with costs captured in a regulatory asset for recovery between rate changes.

Not only does Duke Energy employ thousands of workers in the State, it also supports an extensive local supply chain that extends to virtually every county in South Carolina. In addition, the Grid Improvement Plan that Duke Energy has recently committed to in South Carolina will not only add to the economy of South Carolina, it will help to avert economic losses that result from unplanned outages. We commissioned economic research prepared by Joseph C Von Nessen, Ph.D. "The Economic Impact of Duke Energy: A Statewide and Regional Analysis" that indicates the following: (1) The annual economic impact of Duke Energy on the state of South Carolina totals approximately \$6.6 billion. This figure reflects the dollar value representing all final goods and services produced in South Carolina that can be attributed (either directly or indirectly) to Duke Energy. This impact corresponds to

-

<sup>10</sup> http://www.resh.com/Von Nessen Duke SC EIS Nov2018 FDa.pdf

15,189 jobs and \$969.4 million in labor income that would not exist
otherwise. (2) This \$6.6 billion impact extends to every county in South
Carolina, with the highest impacts occurring in the counties of York (\$1.1
billion), Oconee (\$1.1 billion), Greenville (\$838.3 million), Darlington
(\$756.8 million), and Spartanburg (\$686.4 million). The magnitude of the
Grid Improvement Plan on South Carolina's economy is roughly equivalent to
a new major automotive manufacturing plant locating in the State.

#### VII. <u>CONCLUSION</u>

# 9 Q. WHAT IS THE KEY OBJECTIVE OF THE COMPANY'S 10 REQUESTED GENERAL RATE ADJUSTMENT?

The Company's most important objective is to continue providing safe, reliable, affordable, and increasingly clean electricity to our customers with high quality customer service, both today and in the future. Our request for a rate increase is made to support investments that benefit our customers while preserving the Company's financial position. We strive to ensure that those investments are made in a cost-effective manner that retains the level of service and competitive rates for our customers.

#### 18 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

19 A. Yes.

1

2

3

4

5

6

7